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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/804,819

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Markus Gilch

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EXAMINER

FORD, JOHN K

ART UNIT

PAPER NUMBER

3753

DATE MAILED: 06/27/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/804,819	<b>Applicant(s)</b> GILCH ET AL.	
	<b>Examiner</b> John K. Ford	<b>Art Unit</b> 3753	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 4/24/06
- 2a) ☐ This action is **FINAL**.      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 16, 18, 19, 20, 21, 23-27 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 16, 18-21 and 23-27 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

Applicant's amendments of April 24, 2006 and March 3, 2006 have been careful consideration.

The thrust of the argument in the March 3, 2006 amendment appears to be two-fold. First applicant argues that neither Steinmann, Anderson nor DE '817 disclose a recirculation port and fresh-air port with a changeover damper. While that is true, that particular feature is shown by any one of Eguchi et al (USP 4,437,391) or Fukui et al (USP 4,352,321) or Kettner (USP 5,971,287) or Baruschke et al (USP 5,934,987) and applicant has made no convincing argument as to why one of ordinary skill in the art could not combine the teachings in the manner suggested by the examiner for the purpose of enhancing occupant comfort.

In addition, newly cited JP 56-82624 clearly teaches this feature in a vehicle air-conditioning system, in Figure 1, in combination with an air mass-flow sensor 2.

The secondary argument that the references are "complex" is not a convincing argument. Applicant's own system is "complex" and only appears to be simple because applicant has chosen to disclose it in block diagram form without disclosing the actual details of the components used.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 16, 18, 21 and 23-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 56-82624 or Steinmann (USP 4,508,021) or Anderson (USP 3,028,800) or DE 4100817 (supplied by applicant un-translated) or the admitted prior art on page 2, lines 6-8 of applicant's specification that the "use of air mass flow rate sensors is known in the field of motor vehicle technology for measuring the sucked-in fresh air in the intake tract" and further in view of any one of Eguchi et al (USP 4,437,391) or Fukui et al (USP 4,352,321) or Kettner (USP 5,971,287) or Baruschke et al (USP 5,934,987).

In each of the four primary references (JP 56-82624 or Steinmann (USP 4,508,021) or Anderson (USP 3,028,800) or DE 4100817 (supplied by applicant un-translated)), the actual value of air flowing into the air-conditioning system is measured by a sensor in each of these references that the Examiner deems to be an air mass flow sensor, because these sensors each perform the function called forth in the claims of measuring the mass of air flowing into the system.

JP 56-82624 uses a combined self-heating resistance element/temperature sensor 2 to measure the air mass-flow. The sensor 2 of JP 56-82624 measures air mass flow as evidenced by Trageser (USP 4,043,196) or Sterling (USP 3,372,590), the latter two reference forming no part of this rejection except to conclusively demonstrate that the combined self-heating resistance element/temperature sensor 2 of JP 56-82624 measures the air mass-flow.

Anderson uses a spring-loaded vane 34 to measure airflow. As evidenced by Redington (USP 6,575,046), spring-loaded vanes such as disclosed by Anderson are inherently responsive to the mass flow rate of air through the air duct ("air weight (mass) rather than air volume", Redington, col. 2, lines 21-29, incorporated here by reference).

With regard to Steinmann (USP 4,508,021) and DE 4100817, as evidenced by Mei (USP 2005/0088270) in Figures 4 and 5 sensing a differential pressure across a restriction in the fluid flow conduit gives a mass flow rate. Similarly, Derwent publication 2004-643946 shows a differential pressure type mass flow meter in a climate control plant, ample evidence that Steinmann's differential pressure device and the differential pressure device of DE 4100817 are inherently both measuring air mass flow.

Because applicant's specification contains no disclosure of precisely what constitutes an air mass flow rate sensor, the Examiner is at a loss to determine precisely which type, of a myriad of types of mass flow sensors in the prior art, to search

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for. If applicant doesn't agree with the Examiner on this point, he has only to look to his own specification for the lack of specificity. Applicant was asked in the two previous office actions to provide a translation of DE 4100817, if available to applicant. That request remains ignored.

The air mass flow sensor admitted to be prior art on page 2, lines 6-8 of the specification (whatever type that is) to accurately measure the mass of air entering the motor vehicle would have been obvious to one of ordinary skill in the art to use to measure air mass flow instead of the sensors disclosed by JP 56-82624 or Steinmann (USP 4,508,021) or Anderson (USP 3,028,800) or DE 4100817 (supplied by applicant un-translated) since this advantageously appears to be some sort of "off-the-shelf" component. As well, the Examiner previously required full disclosure of what exactly this admitted prior art is, to aid in further examination of this application and that request remains ignored.

To have used the air flow sensing system of the prior art to JP 56-82624 or Steinmann (USP 4,508,021) or Anderson (USP 3,028,800) or DE 4100817 (supplied by applicant un-translated), or the admitted prior art air mass flow rate sensor of page 2, lines 6-8 of the specification, in any one of the systems of Eguchi et al (USP 4,437,391) or Fukui et al (USP 4,352,321) or Kettner (USP 5,971,287) or Baruschke et al (USP 5,934,987) to keep the amount of air flow from the blower a constant regardless of changing pressure conditions at the fresh air and recirculation air inlets in each of

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Eguchi et al (USP 4,437,391) or Fukui et al (USP 4,352,321) or Kettner (USP 5,971,287) or Baruschke et al (USP 5,934,987) would have been obvious to one of ordinary skill in the art to secure occupant comfort by maintaining the flow rate of air into the compartment constant.

Regarding claim 27, the location of the mass flow sensor at the specified location is not only obvious, but is necessary, if the JP 56-82624 or Steinmann (USP 4,508,021) or Anderson (USP 3,028,800) or DE 4100817 system is to have realized its respective goal of keeping the airflow constant when placed into the Eguchi et al (USP 4,437,391) or Fukui et al (USP 4,352,321) or Kettner (USP 5,971,287) or Baruschke et al (USP 5,934,987) prior art. To have placed the airflow sensor in another location would defeat the whole object or purpose behind the Steinmann (USP 4,508,021) or Anderson (USP 3,028,800) or DE 4100817 references. JP 56-82624 explicitly shows the combination of a mass-flow sensor 2 immediately downstream of what one of ordinary skill in the art would understand to be the conventional recirculation and fresh air inlets to a modern automobile.

Regarding claims 16 and 27, each of JP 56-82624 (Figure 1) or Eguchi et al (USP 4,437,391) or Fukui et al (USP 4,352,321) or Kettner (USP 5,971,287) or Baruschke et al (USP 5,934,987) have these two inlet flows (external and recirculation) and have flaps controlling the external and recirculation proportions.

Regarding claim 18, the JP 56-82624 or Steinmann (USP 4,508,021) or Anderson (USP 3,028,800) or DE 4100817 (supplied by applicant un-translated) systems would each cause this to happen when placed into any one of Eguchi et al (USP 4,437,391) or Fukui et al (USP 4,352,321) or Kettner (USP 5,971,287) or Baruschke et al (USP 5,934,987).

Regarding claims 23 - 26, each of Eguchi et al (USP 4,437,391) or Fukui et al (USP 4,352,321) or Kettner (USP 5,971,287) or Baruschke et al (USP 5,934,987) measure "characteristic variables" given that applicant has put no limits on what these are. For example, Eguchi monitors pollution using sensor 4, Fukui monitors pollution using a gas sensor 1a, Kettner, temperature and RH at various locations (2a, 2b, 3a, 3b, 5a and 5b) as well as pollution (col. 2, line 35) and Baruschke et al (USP 5,934,987), both moisture (5, 5a), pollution (6) and temperature (8, 9) to control the fresh air/recirculation air flap 1.

Claims 19 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over any of the prior art as applied to claim 18 above, and further in view of Passur (USP 2,224,407).


Passur teaches two fans, including a main fan 6 analogous to the one shown in the prior art references and a booster fan 8 and adjustable flap 19 in the fresh air duct to increase the fresh airflow and control it. To have used this type of dual fan/adjustable



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flap in the prior art to improve the outdoor airflow control would have been obvious to one of ordinary skill in the art.

Any inquiry concerning this communication should be directed to John K. Ford at telephone number 571-272-4911.



**John K. Ford**  
**Primary Examiner**